

HOME VEGETABLE GARDENING

JOHN H. MACGILLIVRAY

SPINACH TIP



SWISS CHARD

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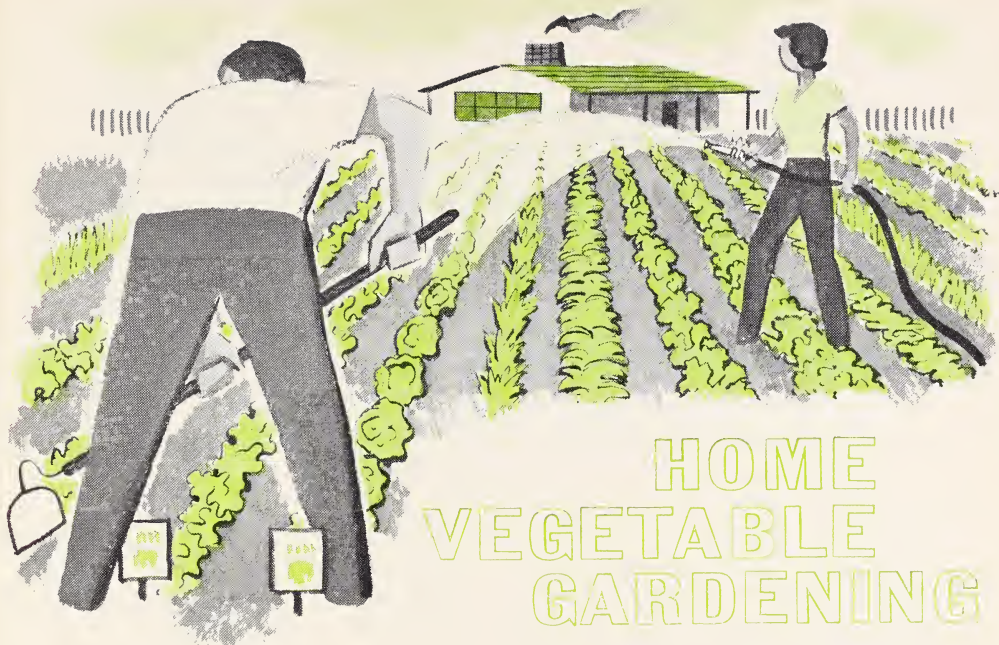
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How to Plant and Store Your Vegetables

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To grow good vegetables you must follow a few simple rules. These rules apply in a small city lot as well as in a ranch garden. In a small garden, you are likely to choose a limited number of vegetables and select only those your family likes best. A large garden allows you a wider choice, extra vegetables for storage, and you may include crops which have less food value and take up more space, such as watermelons.

Here are the general rules to grow home vegetables:

- Select a site that is in the full sun and free from shade.
- Plant at the proper time, when the temperature is right for the particular crop to be grown.
- Plant on the best type soil available. (You can, however, raise a successful garden on all but the poorest of soils.)
- Space plants properly to make the best use of available land.
- Give the vegetables a reasonable amount of care, including weeding and irrigation.
- Harvest when vegetables are at the proper stage of maturity.

See pages 16 and 17 for specific rules for each vegetable.

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Most vegetables fall in two groups:

COOL-SEASON CROPS

Food value is generally higher per pound and per acre than in warm-season crops.



We eat a vegetative part of the plant:

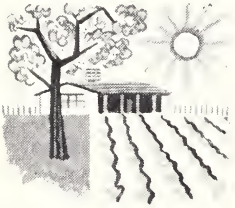
- Root—carrot, parsnip, beet, radish, turnip.
- Stem—asparagus, white potatoes.
- Leaf—spinach, lettuce, celery, cabbage, onion.
- Immature flower parts—cauliflower, sprouting broccoli, globe artichoke.

Planting and harvesting time should be in the cool season.

Size is small to medium.

Root depth is shallow to medium.

Storage temperature should be 32° F, except white potatoes (40° to 50° F).



WARM-SEASON CROPS

Food value is generally lower per pound and per acre than in cool-season crops.

We eat the fruit of the plant:

- Mature fruit—tomatoes, watermelon, cantaloupe, winter squash.
- Immature fruit—summer squash, cucumber, snap and lima beans, sweet corn.

Planting and harvesting time should be in the warm season.

Size is medium to large.

Root depth is medium to deep.

Storage generally not advisable for very long periods.

Note: Two exceptions to the above classification are peas (a fruit, yet a cool-season crop) and sweet potatoes (a root and warm-season crop).



PART I: *What You Should Know About Your Vegetable Garden*

PLANNING YOUR GARDEN

Location

Choose the best available spot. In deciding where to plant your vegetable garden, keep in mind the following:

Good soil. This you cannot control completely. But you can, by a simple test (see page 9), find out whether your soil is in good condition for planting. Proper working and use of fertilizer will improve poor soil and increase your yield even on good soil.

Level ground is the best for growing vegetables. It is easier to prepare, plant, and irrigate than sloping ground. However, a gentle slope to the south or southeast is preferable, as it will make the most of available sunshine. Run rows across the slope, not up and down. This keeps the soil from washing down during irrigation.

Water supply. Make sure that your garden is near a good water supply or can be easily reached by sprinkler attachments.

Adequate light. Do not plant vegetables where they will be shaded by trees, shrubs, walls, or fences. They need maximum sunlight for the best

growth. Trees and shrubs also take water from the soil, and encourage birds which damage young plants.

Plant your garden near the house, if possible. You will be more likely to use spare time for working in it if it is easily reached; and you need not carry tools back and forth over a long distance.

Where your garden is large enough for power tools, be sure to have access to a road or driveway wide enough for moving the equipment.

Arrangement

To get the most out of a small area, make a rough plan for your garden. The chart on page 16 gives you the recommended spacing for each crop. If you use horse or tractor cultivation, the width of the equipment will determine the distance between rows.

Here are some arrangement ideas:

Plan for a small garden, well cared for, rather than for a large one which will be neglected.

Plant long rows to save time in care and cultivation. You may plant several crops in the same row if the distance between rows is about the same. Check the chart on page 16 for crops with similar space requirements.

Plant perennials in a special area at one side of the garden so they will not be disturbed by preparations for the annual crops.

Plant late crops in the same space where spring crops already have been harvested. For example, tomatoes may follow radishes, or cucumbers be planted after spinach.

Plant tall crops, such as corn and pole beans, together. If possible, plant them on the north side of the garden where they will not shade the low-growing crops.

What to Plant

Plant enough of each vegetable for the family's needs, but not more than you can use. You may wish to plant more of crops that store well (see chart, p. 16) than of those that must be eaten as soon as they are ripe. You may also want to allow extra supplies for canning or freezing.

Some plants, such as melons, potatoes, sweet corn, and asparagus, take up quite a bit of room. You may have to plant less of some crops if you want several kinds of vegetables in a small garden.

Some crops, such as radishes, sweet corn, and lettuce, have short periods of yield. Plant those more than once during a season to provide a continuous supply, if your climate permits.

Seeds and Plants

Many of your vegetables will grow from seeds right in your garden. For others, you will buy young plants from the nursery and set them out in your garden. These plants were started from seed, under sheltered nursery conditions, at an earlier time than you could safely plant the seed outdoors. These seedlings will be ready to harvest earlier than if you had to wait for the ground to get warm enough to start them from seed.



This well kept home garden shows the results of careful planning, preparation, and care.

The vegetables you will most likely buy in the seedling stage for transplanting are: tomatoes, peppers, broccoli, celery, cabbage, cauliflower, and eggplant.

If you wish, you may grow any of the above-mentioned vegetables ahead of the season, in a hotbed or coldframe. For directions on construction of a hotbed, see page 7. For help in seeding and transplanting, turn to page 10.

When buying seeds and plants,

Buy seeds or plants from a reliable dealer or nursery. If your neighbor has been growing successful gardens, ask his advice on where and what to buy.

Order by mail from a dependable company, if your local dealer does not have all the varieties you want.

Be sure the seed you buy is fresh. Some seed, such as corn, onion, parsley, and parsnip, loses its viability after about one year. The seed of most other vegetables will be good for about three years. Some companies date their seed packets. It is sometimes more economical to buy seed known to keep for several seasons in larger amounts. Note date of purchase on the packets. Do not use any seed for more than two or three years. Store any leftover seed in a cool, dry place.

Tools

You will not need many tools for use in a small garden, but those you buy should be of good quality.

Spade or spading fork is needed to turn the ground, turn under manure, and break up large clumps of soil.

Rake is useful for smoothing out after spading, and preparing the seed bed. Also, for clearing up rubbish and small weeds.

Hoe takes care of tough weeds and, when turned sideways, digs the V-row for planting. Also used to cover seeds.

Yardstick, twine and stakes are useful for getting the rows evenly spaced and laid out in straight lines.

Putty knife or spatula are handy for blocking out seedlings when transplanting. Also for cleaning tools.

Small hand sprayer and duster will keep insects and diseases under control.

Trowel, one of the handiest garden gadgets, is useful in transplanting and in loosening soil around plants.

Dibble, a short, round, pointed stick, is used to make holes for transplanted seedlings, and to firm dirt around the roots.

Wheel hoe, with several attachments, is useful in weed control, and for making furrows for deep-seeded crops.

Care for Tools

Clean tools after using. A putty knife is good for scraping off dirt.

Keep tools in a dry place to prevent rust. If they do get rusty, soak them in kerosene for a few hours, then scrub off rust with a wire brush or with fine sand.

Keep sharp cutting tools, such as hoes.

Have a special place for tools where they may be hung up out of the way. This prevents damage both to you and to the tools.



GETTING READY FOR PLANTING

How to Prepare a Hotbed

You can get a head start on your garden by growing some seedlings in a hotbed or coldframe for later transplanting. If there is any extra space, it may be used to produce early crops of small vegetables, such as radishes, spinach, and lettuce.

One hotbed, 3×6 feet, will be enough for the average home garden.

Place the hotbed where it will have

- Protection from strong prevailing winds.
- Good natural drainage.
- Abundant sunlight.
- Available water supply.

Make frames out of wood similar to the hotbed diagram. Make the north side 12 inches and the opposite side 8 inches, so water will be shed and the sun will more effectively heat the soil. Place 4 to 6 inches of good soil in a pit so surface is even with soil surface at bottom of boards. There are several ways of furnishing supplementary heat—manure, hot air, hot water, steam, and electric heating cable. Fermenting horse manure provides adequate heat, but is not very practical for small beds. If used, be sure to get adequate directions. Lead-covered electric cables can be used; they are not too expensive and usually are best suited to the home garden. The cable is installed so as to deliver from 150 to 200 watts per 3 by 6 foot sash. Sixty feet of number 19 cable will furnish about 400 watts at 110 volts of A. C. current. Sometimes in a small hotbed light bulbs are used as a source of heat, but are not effective in heating the soil. Put the cable about 3 to 4 inches below the surface of the soil and control the

temperature by a thermostat. Follow accurately the manufacturer's recommendations for the use of the cable. It is not unusual to use one-KW-hr of electricity per 3 by 6 foot sash per day. Be careful not to injure the cable when spading. If you have a heated basement a hotbed can be placed so that a cellar window opens into it and provides warm air. A cold frame lacks artificial heat.

Of the several types of covers for frames, glass sash is the best and most expensive. More light passes through the glass and the bed is warmer than with the other materials. Medium-weight unbleached muslin may be used; also polyethylene plastic. On cold nights the beds will hold more heat if covered with blanket, canvas, or mats, but these covers should be removed during the daytime.

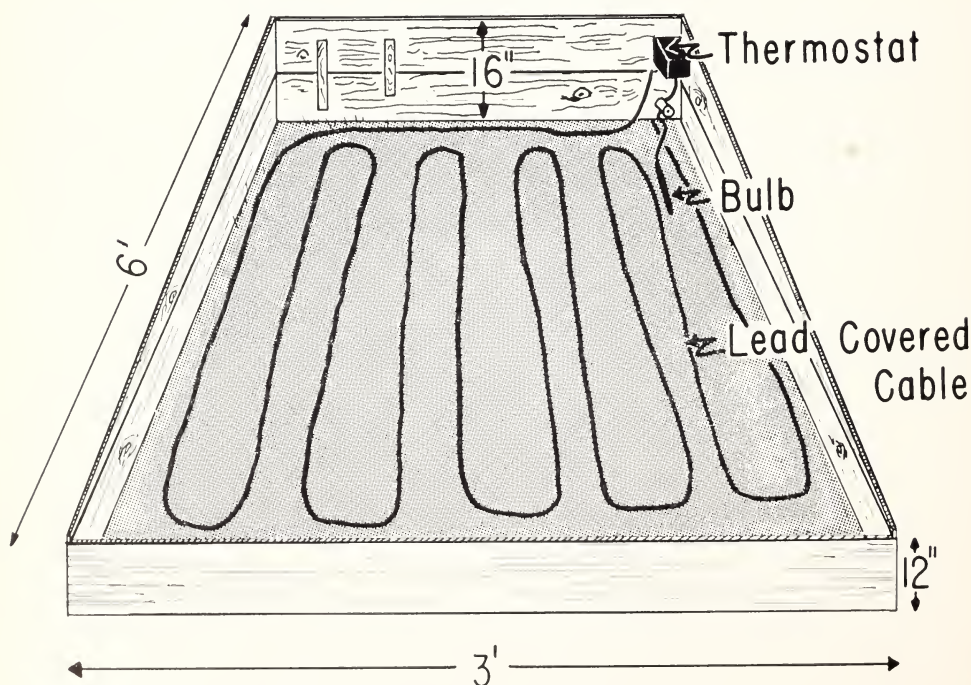
To raise early plants of cabbage,

cauliflower or other crops, plant the seeds in the hotbed soil in rows about 4 inches apart. When the seedlings appear, give them plenty of sun, good ventilation and thin to 2 inches or transplant. Avoid too high temperatures (75°–80°F.), or the plants will be weak and leggy, and subject to disease. On warm, sunny days, prop up cover at one end or on the side away from the wind for ventilation.

Some gardeners prefer to grow plants in small boxes called flats. These are made from wood and may be any convenient size. A size of $23 \times 14 \times 3\frac{1}{4}$ inches is common. Such a flat would have an inside depth of 3 inches. A flat half this size might be more convenient for planting seeds. Flats with young plants can be moved to the field for transplanting. (See pages 10 and 11.)

Commercial growers sometimes cover seed or young plants in the field with

Electric hotbed showing position of lead-covered cable thermostat, and sensitive bulb for soil temperature. Cable to be covered with 3 to 4 inches of soil.





Left: pick up a handful of soil and squeeze. If it forms a mud ball it is too wet to be worked. Working soil in this sticky condition may cause hard lumps to be formed which will be a handicap all through the season.



Right: if the soil crumbles easily in your hand it is in ideal condition to work.

paper hot caps to increase earliness. The caps keep the air temperature higher during the day, but have small effect on night or soil temperatures. When used, remove them gradually when the plants fill the air space. First open the hot caps slightly on the north side and gradually increase exposure until hot caps are removed over a period of a week or two. You may remove the hot caps temporarily for thinning and weeding the seedlings.

Making Compost

Composts are made to supply a fertilizer material high in organic matter, but not particularly rich in plant nutrients. Lawn clippings, vegetable refuse, straw, leaves, and animal manure are the main materials. It is desirable to add chemical fertilizers at a rate of four pounds per bushel of dry material, or half this rate for green or moist material. For best results the fertilizer should be about 45 per cent ammonium sulfate, 15 per cent superphosphate and 40 per cent limestone. Any garden fertilizer of this approxi-

mate mixture may be used. The organic material is usually placed in layers together with the fertilizer. Make a little depression at the top of the pile so that water will penetrate. To aid decomposition, water the compost every week to 10 days, and possibly turn or mix the pile every month or two.

Soil Preparation

Crops may be grown on sandy loam, loam, or clay soils.

Sandy loam and loam irrigate and drain well, and are easy to keep in good condition.

Clay soil is usually more productive than loam, but warms up more slowly in the spring, and requires care as it should not be worked when too wet.

Sandy soil has the least available water per foot of depth; clay soil has the most.

The first step in soil preparation is spading or plowing the garden. Do not spade if the soil is too wet, especially on clay. In some areas, it is possible to give the garden an early spading

Four steps of Seeding and Transplanting of Tomatoes

This method can be used for any plants that you start in a hotbed or coldframe.

1. Right: sow seeds in flat or in soil of hotbed. Cover with one-half inch of soil. Seeds grow best at 65° to 75° F. Temperature may be lowered by ventilation of the flat, or raised by adding extra covers.



before winter rains or frosts come. Work the soil to about 6 inches deep. Immediately after spading, break up big chunks with a spading fork or rake, and see that the soil is well pulverized.

Fertilizer

Manure is a good natural fertilizer. If available, use it to supply your garden soil with the necessary amounts of nitrogen, phosphoric acid, potash, and organic matter; supplement it with treble or superphosphate.

Do not use manure containing a large amount of straw, as the straw does not work into the soil well, and may use up soil nitrogen. The manure should also be fairly free of weed seeds.

Apply manure to the garden each year, in the fall, at the rate of about $\frac{1}{2}$ to 1 pound per square foot.

If manure is not available, use com-

mercial or chemical fertilizers. Most fertilizers used on field crops are also good for the home garden.

In the Imperial and Coachella valleys, the soils need nitrogen and phosphoric acid; in other parts of the state, mainly nitrogen is needed, but both elements (nitrogen and phosphorus) are desirable.

Several compounds are good sources of nitrogen. These include ammonium sulfate, ammonium nitrate, calcium nitrate, and urea.

Phosphates are sold under the labels of superphosphate or treble phosphate. Ammophos contains both nitrogen and phosphoric acid. All so-called complete fertilizers are labeled according to their chemical analysis. For example, 10-10-5 means that the product contains 10 per cent nitrogen, 10 per cent phosphoric acid, and 5 per cent



2. Left: remove seedlings from flat, using a pencil or a small dibble.

3. Left, below: plant seedlings in another flat, spacing them 2 to 3 inches apart. Use a pencil or small dibble to make holes.

4. Below: take up some soil with each plant. Use a trowel to make holes. Firm the soil around each plant, and water gently.



potash. These fertilizers are applied yearly at the rate of 1 to 3 pounds per 100 square feet. They may be scattered over the ground in the spring before it is spaded or plowed.

Liquid fertilizers containing both nitrogen and phosphoric acid are available, and are as effective as dry materials. Since most liquid fertilizers weigh about 10 pounds per gallon, they should be applied at the rate of 1 to 3 pints per 100 square feet. They may be diluted with water and applied by sprinkler can.

Side dressing. Nitrogen compounds are sometimes applied along plants when they are one-third grown, to increase the growth of such leaf crops as lettuce, chard, spinach, and cabbage. If you use this method of "side dressing," be sure to keep the fertilizer several inches from the plants to pre-

vent injury to the roots, and several inches to the side and below newly planted seeds. Apply at the rate of $\frac{1}{2}$ to $\frac{3}{4}$ pound per 100 feet of row.

During the rainy season, nitrogen fertilizers may be applied to the soil surface. The rain will carry them down to the plant roots. Or crops may be side dressed and then irrigated.

Do not get fertilizer on the leaves of the plants. It will burn them, especially if they are wet.

Time of Planting

Seasonal temperatures are very important in determining when a crop should be planted.

Seed of cool-season crops (see box on page 4) will germinate better with cool soil temperatures than will seed of warm-season crops. Average monthly temperatures for cool-season crops are

60° to 65° F during the growing period; for warm-season crops, 65° to 80° F.

Consult the chart on page 16 for planting times for the four different areas of California. These dates are based on the average temperatures for each area, and you may have to make some adjustment if your section varies widely from the average. The planting times given are for seeds unless otherwise stated. Allow 8 to 12 weeks for seeds to produce plants for transplanting.

Other climatic factors affecting growth and quality of vegetables are soil moisture, air temperature, and length of day from sunrise to sunset. For example, Brussels sprouts and globe artichokes only grow successfully near the ocean, where humidity is high and temperatures cool. And many annuals, such as radish, lettuce, spinach, and Chinese cabbage, tend to produce flowers as the days grow longer near June.

Temperature is probably the most important climatic factor affecting the success of your garden. Study the planting chart for your area carefully. It will repay you in the yield and quality of the vegetables you grow.

Planting

Spacing for different vegetables will be found in the chart on page 16.

The distance between the rows depends upon the size of the plants when full-grown. The depth of planting, either in the garden or in hotbed or coldframe, depends upon the size of the seed. Plant small seed about 1½ inch deep. Plant snap beans and sweet corn 1 to 1½ inches deep.

A general rule for planting seed: Plant to a depth four times the average diameter of the seed.

When transplanting seedlings, plant them to the depth at which they were growing in the hotbed or flat. Make

planting holes large enough so that the roots will not be crowded. Be sure to firm the soil around the roots.



CARING FOR YOUR CROP

Irrigation

Most areas of California need irrigation to provide the soil with the moisture plants need for maximum growth.

In normal years, in most areas, winter rains (12 inches or more) usually wet the soil, by spring, to a depth of 6 feet. If the soil is not wet to this depth, it should be irrigated before seeding, so that several feet are wet.

Vegetables differ in their needs for amount of water and frequency of application. In the home garden, it is usually best to adjust irrigation to meet the needs of the shallow-rooted crops. If these are satisfied, the medium- and deep-rooted ones will automatically get enough water. (See page 14.) This same rule applies where the topsoil is shallow, providing only 1 or 2 feet of dirt for root growth.

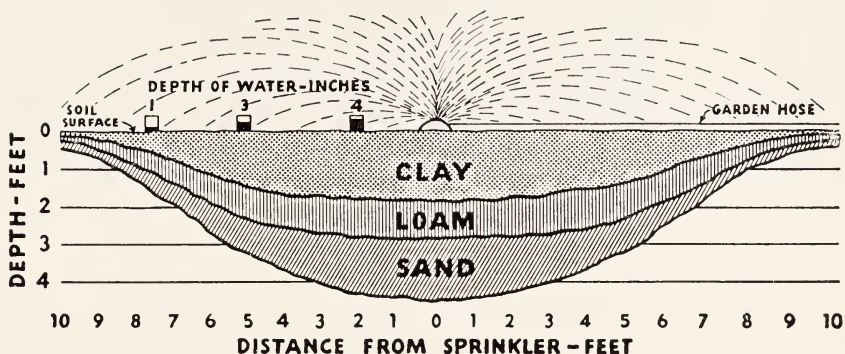
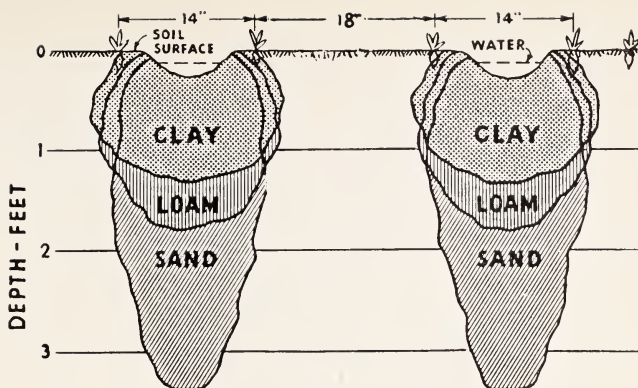
Clay soils hold more usable water than do sandy ones, and do not need irrigation so often. Each foot of depth of sandy soil usually holds ¾ inch of usable water. The same depth of clay soil holds 2 to 2½ inches.

Irrigate your vegetable garden about once a week. Wet the soil to a depth of at least 2 feet at each watering.

If only the surface of the soil is kept moist, most of the water evaporates to the air and is lost to the roots, which are rarely in the top 3 or 4 inches.

Do not waste water. There are simple ways to measure how much water you give your garden.

Penetration of equal amounts of water in furrows of three soil types. Clay holds the most available water per foot of depth; sand holds the least.



If you use sprinklers for irrigating, let their sprays overlap. Otherwise, the soil at the outer edges will not receive enough water.

If you use a sprinkler system, place some empty cans under the spray at various spots, keep track of the time the sprinkler is on, and measure the depth of water in the cans when you turn off the water. Average the various depths to determine how much water your garden is getting at each sprinkling.

If you use a garden hose, turn it on to the force you normally use, and time it to find out how many minutes it takes to fill a 1-gallon can. This will give you the rate of flow per minute. One gallon of water will cover 1 square foot of ground to a depth of 1.6 inches.

Surface irrigation. You may want to use this system; it does not wet the leaves as do sprinklers—which is an advantage because foliage wetting sometimes increases plant diseases.

If you plan to use surface irrigation, follow these two planting arrangements:

For small crops, such as lettuce and carrots, plant seeds in beds raised 5 or 6 inches above ground level, 18 inches wide on the top, with 2 rows to a bed. The beds should be about 32 to 40 inches apart from center to center. Raised beds are good for winter crops because they drain off excess rain. Irrigation water is applied in the furrows between the beds.

You may plant seeds at ground level, in rows 4 to 6 feet apart, with one or two furrows between rows to take water.

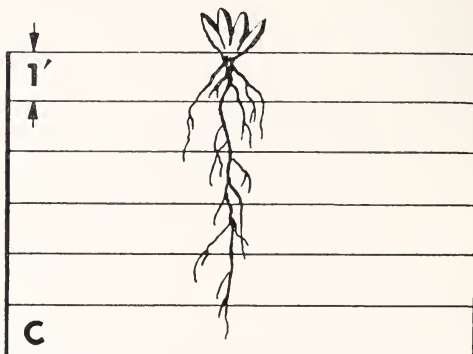
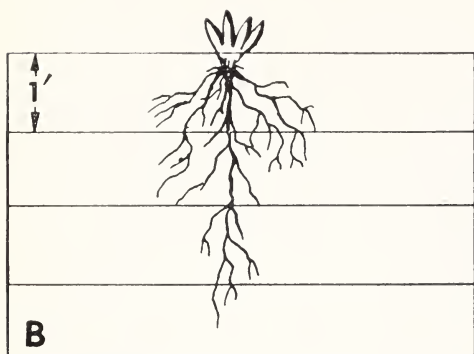
When you are using the surface method, more water is needed in order to wet the soil to the necessary depth of 2 feet.

Depth of Rooting

A. Shallow. Main root system is in the top 2 feet of soil. *Examples:* cabbage, cauliflower, lettuce, celery, sweet corn, onion, white potato, radish.

B. Moderately deep. Main root system is in top four feet of soil. *Examples:* snap bean, carrot, cucumber, eggplant, pea, pepper, summer squash.

C. Deep. Main root system is in top six feet of soil. *Examples:* globe artichoke, asparagus, cantaloupe, pumpkin, tomato, watermelon.



Weeding

Weeds are one of your garden's worst enemies. They take water and plant foods from the soil, shade crops, thus slowing down growth, and choke out small plants.

The chief method of weed control in the small garden is by cultivation. If you have only a few weeds, they can be kept under control by hand-weeding.

Use a hand hoe or wheel hoe. Shallow cultivation, with knife-like blades, is best because this kills the weeds without harming crop roots.

Thinning

Overcrowded crops cannot grow rapidly and to good size. Small root crops, salad crops, and those grown for greens, should be thinned early. Root

crops, such as beets or carrots, should be thinned to 2 inches apart. Radishes should be 1 inch apart, and head lettuce, 12 inches apart.

HARVESTING AND STORING

To get the most out of your vegetables, harvest them when they are at their best stage for eating, and store them under conditions that will keep them as nearly garden fresh as possible.

Some vegetables have a longer edible period and keep better in storage, than do others. The quality of asparagus,



Thin root crops early in their growing season to insure fully developed, well formed vegetables. Left: carrots grown without thinning. Right: carrots properly thinned to about two inches apart.

sweet corn, lima beans, and peas is greatly affected by proper stage of maturity and good storage conditions, and is best with a short storage period. These and other vegetables are best when harvested and cooked immediately. The best time to harvest is given for each vegetable in the section beginning on page 18. Storage times are shown in the chart on pages 16 and 17.

There is always a lapse of time between the harvesting and the eating of your vegetables. Once an edible part has been removed from the plant, it has no further source of food, nor can it replace loss of water. Proper storage conditions will keep food and water losses as low as possible. To maintain vegetables at top quality after harvest, keep them under desirable storage conditions, and do not keep them too long.

Cool-season crops (except white potatoes) and sweet corn should be kept at temperatures between 32° F and 34° F. Beans and melons keep best at 34° to 40° F; peppers, cucumbers, and

ripe tomatoes, at 40° to 50°; pumpkins, winter squash, and sweet potatoes, at 50° to 55° F; and green tomatoes at 50° to 70° F.

HOME VEGETABLE GARDENING

... At a Glance

The following two pages list some of the vital information about raising the 45 vegetables discussed at greater length on pages 18 to 34. The table on pages 16 and 17 will help you select the vegetables best suited to your needs, tell you when to plant them in your area, how much to plant for a four-member family, how far to space, and how long and how cold to store your crop.

SPECIAL TABLE: How To Plant and Store Your Vegetables									
The what, where, when, and how of vegetable gardening									
Vegetable	Planting dates for sections of California.							Recommended storage temperatures, degrees F	Storage period (No. of weeks)
	N. Coast: Monterey Co. north	S. Coast: San Luis Obispo Co., south	Interior valleys: Sacramento, San Joaquin, and similar valleys	Imperial and Coachella valleys	W = warm-season crop C = cool-season crop	Moderate planting for family of four	Distance apart in row	Distance between rows without beds	
ARTICHOKE ³	Aug-Dec	Oct-Dec	.....	.....	C	3-4 plants	48"	60"	32
ASPARAGUS ³	Jan-Mar	Jan-Feb	Jan-Feb	Feb-Apr	C	30-40 plants	12"	60" green 72" white	32
BEANS (lima) ¹	May-June	Apr-May	May-June	.....	W	15-25 ft. row	6" bush; 24" pole	30"	40
BEANS (snap) ^{1, 2}	July-May-June	Mar-Aug	Apr-May, July	Jan-Mar, Aug	W	15-25 ft. row	3" bush; 24" pole	30"	45-50
BEETS ¹	Feb-Aug	Feb-Aug	Feb-Aug	Sept-Jan	C	10-15 ft. row	2"	24"	32
BROCCOLI ^{1, 3}	June-July	June-July	July	Sept	C	15-20 ft. row	24"	36"	32
BRUSSELS SPROUTS ³	June	June-July	.....	.....	C	15-20 ft. row	24"	36"	32
CABBAGE ^{1, 3}	Jan-Apr July-Sept	Oct-Feb	July, Jan-Feb	Sept-Nov	C	10-15 plants	24"	36"	32
CABBAGE (Chinese) ¹	July-Aug	Aug-Sept	Aug	Aug-Nov	C	10-15 ft. row	6"	30"	32
CANTALOUPEs and similar melons	May	Apr-May	Apr-May	Jan-Apr	W	5-10 hills	48"	72"	40-45
CARROTS ^{1, 2}	Jan-Aug	Jan-Aug	July-Aug, Feb	Sept-Dec	C	20-30 ft. row	2"	24"	32
CAULIFLOWER ³	June, Jan	July-Nov	July-Aug	Sept-Oct	C	10-15 plants	24"	36"	32
CELERIAC	Mar-June	Mar-Aug	June-Aug	.....	C	10-15 ft. row	4"	24"	32
CELERY ^{1, 3}	Mar-June	Mar-Aug	June-Aug	.....	C	20-30 ft. row	5"	24"	32
CHARD ¹	Feb-May	Nov-May	Feb-May	Sept-Oct	C	3-4 plants	12"	30"	32
CHAYOTE	.....	Apr-May	May-June	.....	W	1-2 plants	72"	grow along fence	.....
CHIVES ¹	April	Jan-Feb	Feb-Mar	Nov-Jan	C	1 clump	needs 4 sq. ft.	.....	.....
CORN (Sweet) ²	Apr-July	Feb-July	Mar-July	Jan-Mar	W	20-30 ft. in 4 rows	15"	36"	32
CUCUMBERS	Apr-June	Apr-June	Apr-June	Feb-May	W	6 plants	24"	48"	50
EGGPLANT ³	Mar-May	April	Apr-May	Feb-Aug	W	4-6 plants	24"	36"	50

FLORENCE FENNEL	Mar–Jun	Mar–Aug	Aug	Sept–Nov	10–15 ft. row	4"	30" ¹	32	2–3
GARLIC	Nov–Dec	Nov–Jan	Nov–Jan	.....	10–20 ft. row	3"	18" ¹	32	24–32
KOHLRABI	July–Aug	Jan, Aug	Aug	Nov	10–15 ft. row	3"	24"	32	2–4
LEEK	Feb–Apr	Jan–Apr	Jan–Apr	.....	10 ft. row	2"	24"	32	4–12
LETTUCE ¹	Feb–Aug	Dec–Aug	Aug, Nov–Feb	Sept–Dec	10–15 ft. row	head 12"; leaf 6"	24"	32	2–3
MUSTARD	July–Aug	Aug–Feb	Aug	Nov	10 ft. row	8"	24" ¹	32	1–2
OKRA	May	April	May	Mar	10–20 ft. row	18"	36"	50	.....
ONIONS	Jan–Mar	Nov–Feb	Nov–Feb	Nov–Jan	30–40 ft. row	3"	24" ¹	32	12–32
PARSLEY ¹	Dec–May	Dec–May	Dec–May	Sept–Oct	1 or 2 plants	8"	24"	.....	.....
PARSNIPS	May–June	June–July	June–July	Oct	10–15 ft. row	3"	24" ¹	32	8–16
PEAS ¹	Jan–Aug	Aug, Dec–Mar	Nov–Jan	Aug–Nov	30–40 ft. row	2"	36" bush 48" vine	32	1–2
PEPPERS ^{1, 3}	May	Apr–May	May	Mar	5–10 plants	24"	36"	45–50	4–6
POTATOES (sweet) ³	May	Apr–May	May	Mar–May	50–100 ft. row	12"	36"	55–60	8–24
POTATOES (white)	early: Feb late: Apr–May	early: June–Feb late: Mar–Aug	early: Feb–Mar late: Aug	.....	50–100 ft. row	12"	30"	40–50	12–20
PUMPKINS	May	April	Apr–June	Mar	1–3 plants	48"	72"	55	8–24
RADISH ^{1, 2}	all year	all year	Sept–Mar	Oct–Feb	4 ft. row	1"	18" ¹	32	.....
RHUBARB	Dec–Jan	Dec–Jan	Jan–Feb	.....	2–3 plants	36"	48"	32	2–3
RUTABAGAS	July	July, Mar	July, Aug	Oct–Jan	10–15 ft. row	3"	24" ¹	32	8–16
SPINACH ¹	Aug–Feb	Sept–Jan	Sept–Jan	Sept–Nov	10–20 ft. row	3"	18" ¹	32	1–2
SQUASH (summer)	May	Apr–June	Apr–June	Feb–Mar	2–4 plants	24"	48"	40	2–3
SQUASH (winter)	May	Apr–June	Apr–June	.....	2–4 plants	48"	72"	55	8–24
TOMATOES ^{1, 3}	May	Apr–Aug 15	Apr–May	Dec–Mar	10–20 plants	See page 33	See page 33	50	1–2
TURNIPS ¹	Jan, Aug	Aug, Apr	Aug, Feb	Oct–Feb	10–15 ft. row	2"	24" ¹	32	8–12
WATERMELONS	May–June	Apr–May	Apr–May	Feb–Mar	6 plants	60"	72"	40	2–3

1. Crops suggested for a small garden.

2. Crops which, in a suitable climate, should be planted more than once for continuous harvest.

3. Transplants used for field planting.

4. If grown on beds, plant two rows per bed, with beds about 32–40 inches apart, and tops of beds 18 inches wide.

PLANTING POINTERS

Some vegetables in this chart carry numbers. This is your key to what those numbers mean:



PART II: *What You Should Know About Individual Vegetables*

This section contains an alphabetical list of 45 vegetables with some special tips on how to grow them successfully.

For most vegetables, there are a number of varieties from which to choose. Those listed are the more common, or those that can be grown with least difficulty. If you cannot always buy the suggested variety, your seed dealer can recommend another suitable for your locality.

GLOBE ARTICHOKE

Perennial.

Suggested variety:

Green Globe.

Produces greatest yield and best quality in areas along the coast from San Francisco south to Santa Barbara. Can be produced in other areas, but with less success because with long, warm days, the bud scales become hard and unpalatable. Use offshoots or divisions from mature plants. Commercial plantings good for 4 to 5 years, but plants in home gardens may furnish enough buds for a longer period. Transplant in late fall or cooler part of year. Most buds can be harvested from early winter through early spring.

Buds are ready to cut when scales have not spread, and before flowers appear. In cutting, include 1½ inches of stem. Harvest weekly in cool weather. Yield: 40 to 50 buds from a mature plant. Cut stalks off near ground when production period is over.

ASPARAGUS

Perennial.

Suggested variety:

Mary Washington.

In winter or early spring, plant large, one-year-old plants, or crowns, 8 to 10 inches deep in a trench. Cover with about 2 inches of soil, fill in gradually after plants have made considerable growth. Do not harvest the first year. The second year, harvest only half the usual period. A bed may be cut for about 10 weeks after the second year. Spears are ready to cut in early spring when they are about 8 inches long. Cut at ground surface. Too long harvesting reduces future yields. A home garden bed should produce for at least 15 years. For white spears, cover the rows with an 8-inch mound of dirt in spring. Harvest when spears show through top of mound. Eat promptly or store in cool place.

LIMA BEANS

Bush and pole types.

Suggested bush varieties:

Thorogreen ("baby" type, better for warm valleys);

Fordhook Concentrated.

Sixty-five to 90 days required from planting to first harvest. Pick when beans are full and green, before they turn white.

SNAP BEANS

Bush and pole types.

Suggested varieties:

Bush type (green):

Topcrop

Wade

Tenderbest

Bush type (yellow):

Pencil Pod Wax

Pole type:

Kentucky Wonder

Blue Lake

Bush types produce in 50 to 60 days; pole types, about 10 days later. Pick at various stages of pod growth. Some prefer them when they are 1/3 maximum size, or at various older stages up to full-sized, but immature beans. Pods are usually ready about 2 or 3 weeks after blossoms. Under good growing conditions, pickings may be made every 3 to 5 days.

BEETS

Suggested varieties:

Detroit Dark Red;

Crosby's Egyptian (matures early).

Spring crop may be planted in January or February in most sections of California. Low temperatures may cause bolting of the root before it is mature. Early planting matures crop before curly top develops, in sections where leafhopper is prevalent. An August planting will be ready by November or December, and the roots may be left in the ground and pulled as wanted. Thin when plants are 4 inches high.

Left: snap beans trained on strings. A few plants are ample for the average-size family.



Right: photo shows a well-tended field of lima beans.



BROCCOLI

Suggested variety:

Early and medium strains Green Sprouting.

In cooler areas, may be grown most of the year; in warm interior valleys, a fall crop, and sometimes an early spring one, are grown. The immature flower head and part of the leaves and stems are eaten. If harvested before flower buds open, a single planting may produce for three months in late fall and winter.

BRUSSELS SPROUTS

Suggested variety:

Long Island Improved.

Does well only along the coast, not in warmer areas. Sprouts form along the main stem. They may be harvested over a period of a month or more, as they mature from the bottom of the plant upward. Pick sprouts when they are hard, and before outer leaves have a slightly yellow appearance.

CABBAGE

Suggested varieties:

Early:

Golden Acre

Early Jersey Wakefield

Intermediate: Glory of Enkhuizen

Late:

Slow Bolting Flat Dutch

Danish Ballhead

Round Red Dutch (a red type)

Savoy Chieftain

Cabbage may be grown throughout



Chinese cabbage, also called celery cabbage, or pe-tsai. Shown here are one plant (above) and three heads (below) of the Michili variety.

the year on the coast. Low temperatures may cause early bolting. In such areas, plant slow-bolting types or wait until the weather warms up. Cabbage does best in the interior valleys from late fall to early spring. Plants started in flats are ready for transplanting in about 8 to 10 weeks. Harvest when heads are solid. Cabbage will keep well in the field during cool weather; stores well after cutting.

CHINESE CABBAGE

Suggested variety:

Michili

Used primarily for salad, also for greens. Matures in about 70 days, and is best planted to mature in late fall. Low temperatures, followed by long days, prevent heading. Grows rapidly and yields heavily. Harvest when heads are firm.

CANTALOUPE AND OTHER MELONS

Suggested varieties:

PMR #45
PMR #6
Hales Best
Persian
Honey Dew
Casaba

Melons require high growing temperatures; do best in warm interior valleys. May be either orange- or green-fleshed. Most varieties require 90 days to produce fruit; Persian requires 120 days. Vines have separate male and female flowers, and are insect-pollinated. Male blooms do not set fruit. Harvest when fruit is at "full slip." This means when a slight crack completely circles the stem where it is attached to the fruit, so that the stem can be pulled off, leaving a smooth cavity. The slip does not develop in Honey Dew or Casaba. Harvest these when they soften and turn yellow. Melons may only be stored for a short period, except Casaba and Honey Dew, which store well for several weeks.

CARROTS

Suggested varieties:

Nantes
Chantenay

Seeds start best under cool, moist conditions in the spring, but may be started in slightly warmer weather if soil is kept moist. Thin so that roots are 2 inches apart in the row. Carrots are ready for use about 85 days after seeding. Harvest when roots are large enough but still tender. May be stored in the ground during cool winter months.

CAULIFLOWER

Suggested varieties:

Early: Snowball A or Y
Late: November-December

Grows best in cool, fairly moist climate. Plants are ready for transplanting in 8 to 10 weeks after seeding. Snowball may be grown as both a fall and spring crop. It will produce good

Cauliflower. Left: Snowball, an early variety. Right: November-December, a late type. Leaves of late types curl over curd to protect it from the sun.





Celeriac or turnip-rooted celery is eaten cooked or raw in salads. The root on the left shows interior appearance.

heads 2 months after transplanting. Late varieties take 4 to 6 months. If the leaves are not large enough to protect the curd, or head, from the sun, tie them together over the head when it is half grown. Harvest when head is of good size and still compact.



CELERICAC

Variety:

Large Smooth Prague.

Often called "celery root" because the enlarged root is the edible part. Follow same procedure as for celery, but do not blanch.



CELERY

Suggested varieties:

Utah 52-70

Slow Bolting Green #12

Usually grown from small plants. (If grown from seed, keep soil very

moist. Seed should be just barely covered with soil. Seedlings are ready for field transplanting in 8 to 10 weeks after seeding.) Crop is ready for cutting in about 120 days after transplanting. Distance between rows depends on method of blanching; 4 feet are required for dirt blanching. Celery may be blanched by planting rows close together so that plants shade each other. Outside rows are blanched by covering with paper or boards. Individual plants may be blanched by wrapping with newspaper to cover 10 to 12 inches of the stalk. Stalks require 10 to 20 days to whiten. Harvest when blanching is completed. Blanching is not considered essential by some gardeners. If weather is cool, this crop keeps well when left in the garden.



CHARD

Suggested varieties:

Lucullus

Fordhook Giant

Start crop in late winter or early spring to avoid severe damage from curly top. Plants bear heavily and produce greens most of the year. New leaves develop in center of plants as older ones are cut from outside. One plant will stand many pickings.



CHAYOTE

Perennial vine.

Growth habits similar to cucumber. Grows in cooler sections, for fall and early winter harvest. Plant whole fruits in spring. Place them on a slant in the soil, with stem end up. Train vines on a trellis. Harvest as soon as fruits are full grown.



CHIVES

Perennial.

Grow from seed or by division of a clump already established. Good for giving mild onion flavor to salads and other dishes.



SWEET CORN

Suggested varieties:

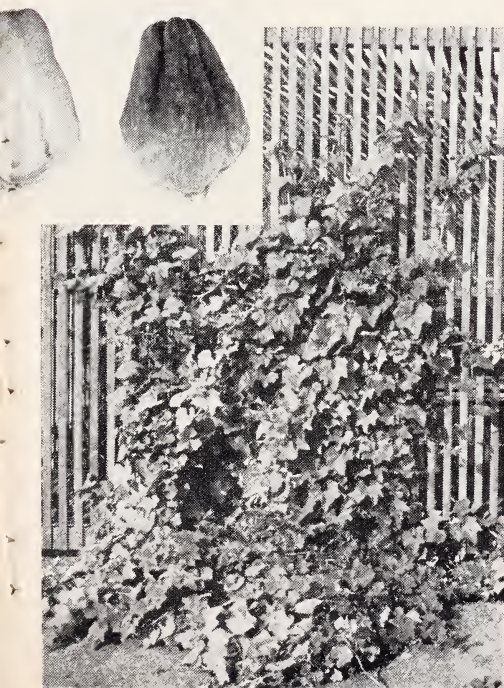
Golden Bantam

Golden Cross Bantam

Seneca Chief

Thrives best when planted in small blocks of 4 or more rows, instead of a single row. Pollination is better in this type planting, and the ears will be well filled. (Removing suckers from base of plants does not increase yield.) For a continuous supply, plant small blocks every 2 or 3 weeks. If you want corn all summer, plant it in a warm,

Chayote is a trailing vine which needs support. The fruit (inset) has only one seed and is used like summer squash or is baked. The fruit is eaten at an immature stage.



not hot, area. Harvest at the milk stage, since the sugar decreases and the starch increases as the kernel approaches the dough stage. Test for this by pushing your thumbnail into a kernel. If kernel is plump, and milk pops out, the ear is ready to pick. Husks on mature ears feel firm when grasped. Corn should be used immediately after picking. It does not keep well unless stored at near freezing temperature.



CUCUMBERS

Two types—slicing (for salads) and pickling. The latter not usually grown in small gardens, since slicing types may also be used for pickling.

Suggested varieties:

Slicing:

Ashley

Marketer

Lemon

Pickling:

Wisconsin S.M.R. 12

Should be planted and handled in same way as cantaloupes, although cucumbers are less sensitive to cool weather. Insufficient soil moisture may cause bitterness. Harvest slicing type when 8 to 10 inches long; pickling type, at about 3 inches. A small number of plants will give an ample supply.



EGGPLANT

Suggested variety:

Black Beauty

A very few plants will meet the average family's needs. Should be planted and handled like tomatoes, but is slightly more sensitive to cold. Usually grown from seed in a hot-

bed, and transplanted when soil has warmed up. Harvest when fruits are 4 to 6 inches in diameter. Test by pressing with the thumb. If the flesh springs back, the fruit is green; if it does not, the fruit is mature. Harvest about half way between these stages. Cut with knife or pruning shears.

ENDIVE

Suggested varieties:

Full Heart Batavian (escarolle)

Ruffec

Grown for use in salads, as greens, or as a garnish. Planted and handled like lettuce, but is hardier, and may be produced as a winter crop in many sections where lettuce will not grow. Yields over longer period than lettuce. Crop is produced in 90 days. When plants reach 12 inches in diameter, tie leaves together at the top, to blanch the hearts. Do not tie when wet; this may cause decay. Harvest when well blanched.

FLORENCE FENNEL

Often called Finocchia or Sweet Anise. The bulblike enlargement at the top of the stem is eaten raw, like celery, or used for flavoring. Has a licorice flavor.

GARLIC

Does well in most parts of California if properly handled. A few feet of row



Corn, just right for harvesting, is shown in the center. The ear at the top is too mature for good eating; the one at the bottom not mature enough.

will give an ample supply. Plant in fertile soil, in late fall, winter, or early spring. Fall planting is best if winters are not severe. Give same treatment as onions. Harvest when tops begin to die. If only a few plants are grown, tops may be braided, and the rope of garlic hung in a cool, dry place, for use as needed.

KOHLRABI

Suggested varieties:

Purple Vienna

White Vienna

Edible part is the fleshy stem which forms just above the ground. Flavor is similar to turnip, but somewhat milder. Harvest when fleshy part is about 2 inches in diameter.

LEEK

Suggested variety:

American Flag

Belongs to the onion group, but has only mild onion flavor. Does not form a bulb, but is about 1 to 1½ inches in diameter, and is blanched. Usually grown as a fall crop in most areas, and may be left in the field for some time after maturity. When plants are almost full size, draw soil around them to a height of 6 to 8 inches, to blanch lower part of the plants.

LETTUCE

Suggested varieties:

Loose heading and leaf types:

Cos (Romaine)

Black Seeded Simpson

Head types:

Great Lakes 118

Bibb 366

Very sensitive to high temperatures. Winter crop is grown in Imperial Valley; spring, summer, and fall crops in the Salinas Valley and along the coast. Great Lakes is grown in the less-favorable climate than Bibb. Thin head lettuce to 12 inches between plants; leaf lettuce to 4 inches. Harvest when heads are firm.



MUSTARD

Suggested variety:

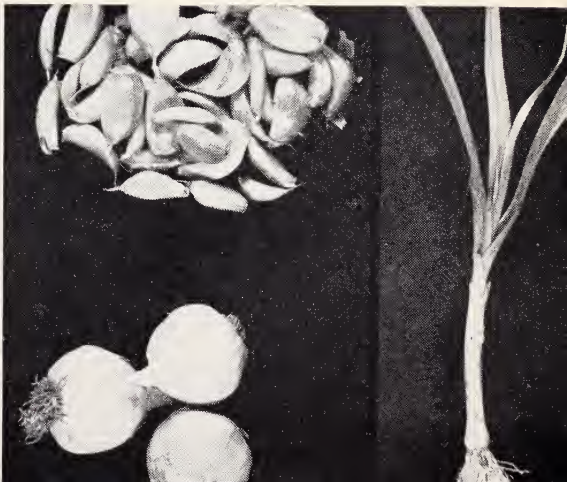
Southern Giant Curled.

A cultivated variety is better than the wild, for spring greens. Grown and handled like spinach. High in calcium and iron. Those elements are believed to be more easily available to the human body in mustard than in spinach.

Left, below: eggplant has large leaves and the fruits are seven to ten inches long.

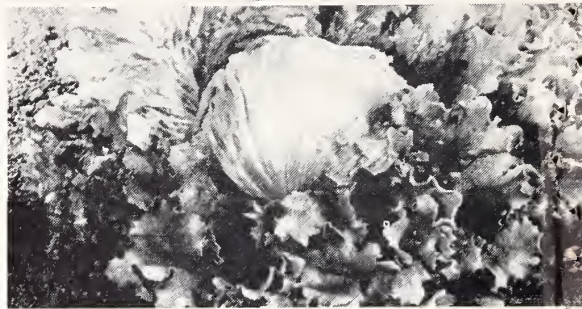
Below: florence fennel has a sweet anise-like flavor. The swollen bases of the leaf petioles are sometimes called apples or bulbs.

Bottom: garlic is propagated from cloves obtained by breaking up the mature bulb. Shown are the characteristic flat leaves of the plant which forms a bulb late in the spring.





Kohlrabi (early White Vienna variety) at the proper stage for harvesting. The edible part is similar to the flesh of the turnip root.



Two types of lettuce suitable for California. Above: Black Seeded Simpson, a leaf type. Below: Great Lakes, a head type.

OKRA

Suggested varieties:
Clemson Spineless
Emerald

Sometimes called gumbo. Do not seed until soil is warm. This is a summer and fall crop. Soak seed in water for 24 hours before planting. Plant only those seeds that have swollen. Plants grow to height of 4 to 5 feet, and produce pods in about 60 days. After pods begin to form, pick them every 2 or 3 days. The plants will stop bearing if pods are allowed to ripen on the stem.

ONIONS

Suggested varieties:
Early:

Early Grano
California Early Red
Stockton Yellow Globe

Late:

Sweet Spanish
Southport White Globe
Australian Brown

These varieties are grown for bulbs. Sweet Spanish is an excellent late type. If you want green onions, Spanish is a good variety.

You can start ripe onions:

1. From seed. Requires a longer growing period, and rows have to be thinned. Cheapest method, most generally practiced.

2. From sets—small, mature onion bulbs planted like seed. Easy method for the inexperienced gardener, early yield, but expensive.

3. From transplants. Also easy, early, but expensive unless you raise your own plants.

Dry onions are ready to harvest when the tops fall over. Pull onions and dry them for a few days in the sun. Keep them covered with the tops to prevent sunburn. Store in a dry place. A few onion tops ("stiff necks") do not fall over. They do not keep well. Use them soon after harvest.

Harvest green onions when they are $\frac{1}{4}$ to $\frac{1}{2}$ inch in diameter.



Mustard is a plant grown for greens. Since only the leaves are harvested, you can make several cuttings from one planting.



PARSLEY

Suggested variety:

Moss Curled (Extra Triple Curled)

Grows best on fertile loam soil. Two or three plants may be grown near the kitchen. Plant seed in spring. In cool areas, the older leaves will be ready after a few months for continued picking all summer, fall, and winter.

PARSNIPS

Suggested variety:

Hollow Crown

Do not plant in soil that is too heavy. Seed germinates slowly and crop is slow to mature— $3\frac{1}{2}$ to 4 months. (Radish seed, which matures early, is sometimes planted with parsnip seed, to mark the rows for early cultivation.) Eating quality is improved by frost, and roots may be stored where grown. Storage in a moist atmosphere just above freezing also improves flavor.



PEAS

Vine or bush type.

Suggested varieties:

Bush:

Laxton's Progress No. 9

Perfection

Vine:

Alderman

Melting Sugar (prepared as snap beans—both seeds and pods are eaten).

Left: onions, grown for bulbs, ready for winter storage. Leaves dried at top seal off onion.

Right: perennial onions, grown for green onions. One plant will form a cluster for market.



Peas do best when produced during cool weather, as warm weather makes the harvest season short. Bush peas may be grown in most areas of California; climbing types are best planted along the coast. Poles should be provided for climbing types. Height of poles will depend on the variety grown. Harvest when seeds in pods are well developed but tender enough so that they may be crushed between the fingers without separating into halves. Peas should be cooked as soon after they are picked as possible. If it is necessary to keep them for a short time, store in the refrigerator, and do not shell until ready to use.

PEPPERS

Two types: the large-fruited, bell type (preferred by most gardeners), and small hot varieties which may be used green.

Suggested varieties:

Bell type:

- California Wonder (large, squarish, four-lobed fruits)
- Pimiento or Perfection (thicker-fleshed, smaller)

Hot type:

Hungarian Wax

Cultural and climatic requirements for both types are the same as for tomatoes, but peppers need a fertile soil. You may start peppers in a hot-bed or coldframe, for transplanting, or buy small plants from the nursery and set them out in the garden. Fruits may be harvested green or ripe. Hot peppers which are to be dried should be allowed to ripen on the plant. They turn red when ripe. They may then be cut, with one inch of stem, strung on a thread, and hung in a sunny place until dry and brittle. Use a sharp knife for cutting, as stems are tough.

SWEET

POTATOES

Suggested varieties:

Moist type:

Puerto Rico (several strains)

Dry type:

Yellow Jersey

Grow best on light, sandy soil. Sensitive to temperatures below 50° F. Not grown along the coast or in northern sections of the state. Usually grown from sprouts or slips which are pro-

Parsnip is a root crop requiring a long growing season. Its quality is improved by winter freezing.





Left: sweet potato sprouts, produced for transplanting from a root. The single sprout is ready to be set out. Right: hot pepper plant in fruit.

duced by the following method: Place small sweet potatoes in a hotbed about March 1. Cover with 3 to 4 inches of sand; a soil temperature of 70°–75° F is needed for sprouting. In about 6 weeks, sprouts about 8 inches long will be ready. Pull sprouts and transplant to raised beds. You may grow several crops of sprouts from the same planting if you keep the hotbed moist. After sprouts have been set out, they need several light irrigations throughout the growing period. Potatoes may be harvested slightly immature if they are of suitable size, otherwise leave them in the ground until the roots are full grown and the vines begin to turn yellow. However, if leaves are killed by frost before they yellow, cut them off, dig the roots, and store them at once in boxes in a warm, dry cellar. Do not bruise the roots when digging, as this makes them more likely to decay. Sweet potatoes improve during storage, as a part of their starch content turns to sugar.

WHITE

POTATOES

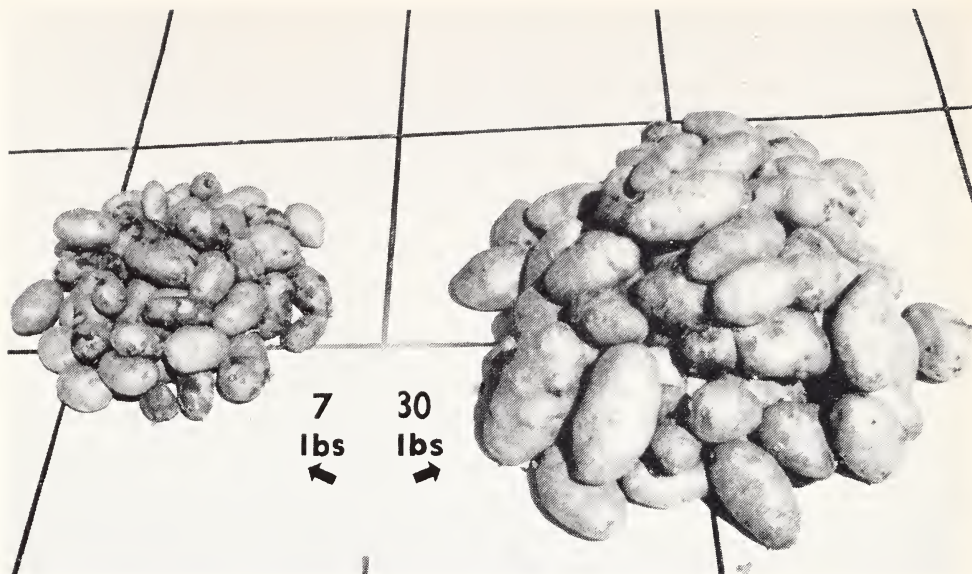
Suggested varieties:

White Rose

Pontiac

Kennebec

If your garden is small, you will probably grow only a few potatoes for the early part of the season, since this vegetable is plentiful in all markets. Potatoes are grown from sections of tubers. Buy state-certified seed potatoes if possible. These have been tested and will be free from virus disease. Cut seed potatoes into pieces weighing from 1 to 2 ounces and having one or more eyes. Store cut pieces in a cool place for one or two days before planting so that the cut surfaces will dry and callus. This decreases rotting. Drop seed pieces into furrows 3 inches deep. Fill in the furrow to ground level and leave this way for two thirds of the



Potatoes: it pays to buy certified seed. Left, yield from noncertified seed. Right, yield from the same amount of certified seed.

growing season (about 2 months). Then add 3 more inches of dirt so that the seed pieces are then buried 6 inches deep. This covers the new potatoes and prevents greening. Potatoes are shallow-rooted and need irrigation at least once a week. Apply nitrogen fertilizer at planting time to increase yields. Harvest early potatoes when they are large enough for table use. Potatoes that are to be stored for later use should be left in the ground until the tops of the plants are partly dead, and the skin on the tubers is firm, not flaky. Store in a cool, dark cellar.

RADISHES

Suggested varieties:

White:

White Icicle

Red:

Cherry Belle

Comet

Sparkler

Easy to grow. Several successive crops may be planted during the season in cool areas. Ready to pull in 3 to 4 weeks after seed is planted.

PUMPKINS

Suggested varieties:

Small Sugar

Kentucky Field (Dickinson)

Connecticut Field

Give same care and treatment as winter squash.

RHUBARB

Perennial.

Suggested varieties:

Strawberry

Cherry

Grows best along the coast and in cool sections of the central valleys.

Start plants in winter or very early spring. Rhubarb is grown from pieces of an old "crown" or rootstock, and each piece should have at least one good strong bud. Plants should be fertilized once a year, just before the cutting season. They should grow vigorously until early summer. They will then become dormant until the winter rains come. During this first growing season, few, if any, stalks will be ready to harvest. After this period, however, the plants should produce for 5 to 8 years. They should then be divided and the new rootstocks planted.

RUTABAGAS

Suggested variety:

American Purple Top

Grow in cooler areas of the state, and are treated in the same way as turnips. Require 90 to 100 days to grow. Their quality is improved by a short storage period.

SPINACH

Suggested varieties:

Bloomsdale Long Standing

Nobel

A cool climate is best for production, as during periods of warm temperature and long days, the plants are likely to produce seedstalks before making desirable foliage growth. Spinach will produce for a longer period in cool coastal areas. Forty to 50 days are required to produce the spring crop. When ready to harvest, either the whole plant or only the large leaves may be cut. If only the leaves are cut, a second crop will grow.

SUMMER

SQUASH

Suggested varieties:

Zucchini

Early Prolific Straightneck

Early Bush Scallop

Left: rhubarb crown to be divided for propagation. Rhubarb is a perennial whose leaf petioles are used for food. Right: spring radish varieties. From left to right: Sparkler, Scarlet Globe, White Icicle.



Under good growing conditions, fruits are ready for first harvest 50 to 65 days after seeds are planted. Fruits are cut when immature—3 to 6 inches long.

WINTER

SQUASH

Suggested varieties:

Pink Banana
Table Queen
Butternut

Seed is planted 4 feet apart in hills with rows 6 feet apart, and thinned to 1 plant per hill. Plant when soil has warmed up in spring. Immature squash may be used as a substitute for summer squash, but those to be stored should be left to mature on the vine. Mature fruits have hard outer shells. Cut stems of fruits to be stored with a sharp knife. Leave a short piece attached, and avoid bruising. Store in a dry, fairly cool cellar.

TOMATOES

Suggested varieties:

Earlypak 7
Pearson
VF 36
Ace

Although tomatoes are a warm-season crop, you may grow them even in cooler areas if you choose the right varieties. Earlypak 7 is good for an early crop and also as the main crop in cooler areas. Pearson is grown throughout the state, and sets well even at cooler temperatures. Any of these varieties may be used for staked plants.

You may start tomatoes from seed, in a hotbed, around February 1. (See pages 10 and 11 for directions on seeding and transplanting.) Do not give too much water or fertilizer before seedlings are transplanted, and keep hotbed well ventilated on warm



Winter squash varieties vary in shape and color. Shown here is Table Queen with characteristic corrugated hard stem.



Summer squash blossoms. At left is a male flower which does not produce fruit. At right a female flower with partially matured squash.

days. Early varieties may be spaced 3 feet apart, in rows 4 feet apart, since they produce less growth than later varieties, which should be spaced 5 to 3 feet apart.

Early varieties may also be set 1 foot apart in rows and trained to a single stem. Drive a stake into the ground beside each plant. Tie the main stem loosely to the stake at intervals. Pinch off side shoots as they appear. Staking is a good method where space is limited, and it produces clean, easy-to-pick fruits.

Early varieties are medium-rooted, and need several irrigations. In cooler areas, with an average annual rainfall of 15 inches, average yields may be produced without irrigation.

Most plants do not set fruit from all blossoms. This may result from extremes of temperature, or an already heavy load of fruit on the plant. Harvest when fruits are red ripe. Toward the end of the season, there will be some whitish-green full-sized tomatoes still on the vines. These may be picked and stored at 70° F to ripen.



TURNIPS

Suggested variety:

Purple Top White Globe

Crop may be produced in 60 days, and must be kept growing to prevent strong flavor. Requires care similar to that for beets.



WATERMELONS

Suggested varieties:

Klondike R7 (solid dark green)

Striped Klondike or Blue Ribbon
(dark and light green stripes)

Watermelons require lots of space, and are therefore limited to fairly large gardens. General methods of planting and handling are same as for cantaloupes. First fruits may be harvested about 89 days after seeds are planted. May be grown with fair suc-

cess without irrigation in sections where winter rainfall is over 12 inches, and the soil stores 9 inches of water. Irrigation may increase the yield. When dry-farming is to be practiced, plant seed as early as possible in spring, and thin plants to one per hill. A good test for ripeness in watermelons is to rap the side of the fruit with the knuckles. A light, or metallic sound means that the fruit is still green; a dull sound means it is ripe. This test is most reliable in the early morning,

for during the heat of the day, or after melons have been picked for some time, they all sound ripe, regardless of stage of maturity. Fruits have a "ground spot" where they rest on the ground, and this will turn slightly yellow as the fruit matures. Watermelons tend to become rough as they mature. The tendrils near the fruit darken and dry up as the fruit ripens. These tendrils are on the leaf closest to the melon. Do not pull melons off the vine; cut them with a sharp knife.

The author wishes to thank the Ferry-Morse Seed Company for supplying many of the photographs used in this circular.

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A prosperous large home garden. Pages 5 to 15 give information on planning, preparation, and caring for a garden such as this, as well as for small gardens.



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